

Environmentally Preferable Carpet



King County

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INTRODUCTION

Few building products are as ubiquitous as carpets and rugs, which cover 70% of U.S. floors, according to the Carpet and Rug Institute, the industry's trade association. A carpet's lifecycle impacts include chemical emissions from manufacturing, depletion of petroleum and other natural resources, transportation, indoor air quality concerns, and disposal costs at landfills and recycling operations. Choosing carpet that minimizes these impacts is especially important given the huge amount of carpeting used in the United States and its relatively short expected useful lifetime. Most carpet manufactured and installed in the U.S. is made of synthetic materials, especially nylon, polyester, and polypropylene face fibers, and most backings are made as a sandwich of polypropylene fabric and latex or PVC. Most commercial carpets are made by bonding a face fiber to a backing fiber, using one of a variety of strong bonding agents. Nylon 6 and nylon 6.6 account for nearly two-thirds of the face fiber market, with polyester as the next most commonly used fiber.

There are many ways that carpet can be made more sustainable. Many companies offer recycled content backing, modular tiles that extend carpet life, recycled content cushion, low or no-VOC adhesives, refurbishing programs that extend carpet life, and recovery programs that keep carpets out of the landfill. Several manufacturers have even committed to reduce the life-cycle impacts of carpet by reducing emissions during manufacture, using solar or other renewable energy to power their plants, and making a commitment to reducing waste, toxics, and non-renewable resource depletion.

STANDARDS AND GUIDELINES

Carpet Choice and Maintenance Guidelines

Several environmentally responsible carpet options are available, each with their own merits and considerations, and what you choose will depend on your specific application. Consider the following when choosing a new carpet:

- The type of fiber (i.e., nylon— nylon 6 or nylon 6.6, polyester, P.E.T., wool), the recycled content, durability, and the recyclability of the face fiber, backing, and cushion
- Carpet fiber construction and pile type, which determine appearance and performance

- Using carpet tiles rather than rolls to facilitate repair and extend the useful life of the carpet
- Colors and patterns that hide wear
- Carpet fiber construction (manufactured by tufting, weaving, and fusion bonding, of which tufting is the most common) and pile type (loop, cut, or combination), which determine appearance and performance. Lower pile height and higher pile yarn density is better for high traffic areas and gives the best performance.
- Backing or carpet cushion with high recycled content and/or minimal resource use
- Environmentally preferable adhesives, and pre-applied adhesives for less waste
 - Some carpet tiles come with pre-applied adhesives for ease of installation. This type of tile tends to emit less VOCs because it does not require a separate adhesive application during installation.
- Use carpet only where necessary, and maintain and clean it properly to maximize its life.
- Proper installation
- Proper maintenance - [Carpet and Rug Institute Carpet Maintenance Guidelines](#)
- Recycling your old carpet to keep it out of the landfill

Standards and Certifications

- Sustainable Carpet Assessment Standard [NSF/ANSI Standard 140-2007e](#)

The standard ranks products as bronze, silver, gold, or platinum, evaluating them in terms of sustainability in the areas of

 - Public Health and Environmental
 - Energy and Energy Efficiency
 - Bio-based and Recycled Content
 - Manufacturing
 - Reclamation and End-of-Life management
- [SCS Certified](#)

[Sustainable Carpet](#)

SCS made that standard equivalent to the higher two levels of NSF 140 and certifies products to the standard through its Sustainable Choice program.

[FloorScore](#) – indoor air quality
- [Carpet and Rug Institute \(CRI\) Green Label Plus certification for Indoor Air Quality \(IAQ\)](#)

Certifies carpet, cushions, and adhesives
- [Carpet America Recovery Effort](#)

Carpet America Recovery Effort (CARE) is a joint industry-government effort to increase the amount of recycling and reuse of post-consumer carpet
- [GreenGuard](#)

Indoor Air Quality for resilient flooring and adhesives

USAGE HISTORY AND EXPERIENCE

King County agencies buy carpet, cushions, adhesives and installation services for small remodels and renovation work through the State of Washington flooring contract. Many of the products available have various certifications for recycled content and other elements of environmental preferability, including low emissions of volatile organic chlorides (VOCs).

In the past year, King County purchased 6,511 square yards of recycled content carpet with low VOC's. The carpets contained 10 to 57 percent recycled content and are certified to NSF/ANSI-140 Sustainable Carpet Assessment Standard. These carpets and adhesives also met the Carpet and Rug Institute Green Label Plus certification for Indoor Air Quality (IAQ).

In December 2011, a new flooring contract was awarded by US Communities that the County plans to use in 2012 in addition to the state contract. This contract offers many sustainable choices and certified products, including a carpet tile product that uses minimal adhesives that contain virtually no-VOCs. This project was led by City of Seattle to encourage the most environmentally preferable products and makes them available nationwide through this contract.

Carpet Recycling

In the past year, King County agencies recycled over 5,300 yards of used carpet through the State of Washington flooring contract. Agencies use this service when they are replacing existing carpet with new flooring materials. The reclaimed carpet is collected at a local warehouse and then shipped to a carpet manufacturer to be turned into carpet pad, car parts and other products.

BID AND CONTRACT LANGUAGE

King County currently uses the [State of Washington contract #00710](#) for flooring.

Other contracts:

[US Communities flooring contract \(2011\) – Empire Today](#)

FOR MORE INFORMATION

- [EPA's Product Stewardship Report on Carpet](#)
- [Green California - Carpet](#)

VENDOR INFORMATION

King County's current vendor:

[Great Floors](#) – [contract #:493237](#) installs carpet and collects carpet for recycling

[Empire Today](#) – [contract #: 5402589](#) – carpet and flooring

(US Communities contract – City of Seattle lead agency)